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| 10/810,189 | 03/26/2004 | Mark Grayson | 062891.1216 | 8023 |

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| EXAMINER | |
|---|---|
| LY, ANH VU H | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2616 | |

| NOTIFICATION DATE | DELIVERY MODE |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/810,189 | GRAYSON ET AL. | |
| | Examiner | Art Unit | |
| | Anh-Vu H. Ly | 2616 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *27 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-44* is/are rejected.

7)☒ Claim(s) *11-15,20,21,26,27 and 38-42* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Amendment*

1. This communication is in response to Applicant's amendment filed June 27, 2007. Claims 1-44 are pending.

### *Claim Objections*

2. Claims 11-15, 20-21, 26-27, and 38-42 are objected to because of the following informalities:

With respect to claims 11, 20, 26, and 38, in lines 1-2, replace "Logic to provide a multicast service, the logic embodied on at least one computer readable medium and operates to" with --A computer readable medium encoded with computer executable logic to provide a multicast service comprising--.

With respect to claims 12-15, in line 1, replace "The logic of claim 11" with --The computer readable medium of claim 11--.

With respect to claim 21, in line 1, replace "The logic of claim 20" with --The computer readable medium of claim 20--.

With respect to claim 27, in line 1, replace "The logic of claim 26" with --The computer readable medium of claim 26--.

With respect to claims 39-42, in line 1, replace "The logic of claim 38" with --The computer readable medium of claim 38--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-4, 6-9, 11-14, and 16-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toth et al (US 2005/0053068 A1) in view of Cohen et al (US 2002/0065078 A1). Hereinafter, referred to as Toth and Cohen.

With respect to claims 1, 6, 11, 28, 33, 38, 43, and 44, Toth discloses a method for providing a multicast service (Fig. 1), comprising:

maintaining multicast service information at an application server (Fig. 1, GGSN1 which including memory and processors for storing multicast state), the multicast service information describing a multicast service having an associated subscriber (Fig. 1, M1-M10), the multicast service operates to deliver multicast content from a multicast source (page 3, 50$^{th}$ paragraph – a multicast source (MCS) is coupled to the GGSN and delivers for instance various multicast services such as streaming video and audio);

determining a cell supporting a user device associated with the subscriber (Fig. 1, M1-M3 coupled to RAN1);

initiating creating of a bearer path for the multicast service (page 4, 81$^{st}$ paragraph – SGSN informs the RAN that mobile station is joining the multicast group, so that the proper radio access bearer can be set up for the given multicast session).

Toth does not disclose directing an enabler mobile to facilitate delivery of the multicast content to the user device using the bearer path, the enabler mobile located in the cell for which the enable mobile enables delivery, the enabler mobile distinct from a base station, the enabler mobile further distinct from a base station controller.

Cohen discloses a multicast cell 20 comprising connection station 23 for handling transmission of data between terminals 24 and 25 of users present in the multicast cell and servers connected to the station 23 via the satellites 21 and 22 which serve as radio relays (page 3, 48th-49th paragraphs and Fig. 2. Herein, the satellite is the enabler mobile, located in the multicast cell, for delivering multicast content and it is not the base station or base station controller). It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include satellites for relaying multicast content in Toth's system, as suggested by Cohen, to deliver a communications infrastructure to areas where terrestrial alternatives are unavailable, unreliable and simply too expensive.

With respect to claims 2, 7, 12, and 44, Toth discloses determining an enabler mobile corresponding to the cell supporting the user device; and instructing the enabler mobile to initiate creation of a radio access bearer (page 4, 81st paragraph – SGSN informs the RAN that mobile station is joining the multicast group, so that the proper radio access bearer can be set up for the given multicast session. Herein, RAN is already determined as the RAN serving the mobile station).

With respect to claims 3, 8, 13, 30, 35, 40, and 44, Toth discloses communicating one or more parameters associated with the bearer path to the user device, the user device operable to use the parameters to receive the multicast content (page 4, 87th paragraph – SGSN notifies the mobile station of the radio access bearer and quality of service defined for the multicast session).

With respect to claims 4, 9, 14, 31, 36, and 41, Toth discloses establishing a multicast service level of the multicast service in accordance with the cell supporting the user device (page 4, 78th paragraph – GGSN decide the quality of service to use for the distribution of the multicast group based on information from the source, operator settings and/or the mobile terminal).

With respect to claims 16, 18, and 20, Toth discloses a method to provide a multicast service (Fig. 1), comprising:

receiving at an enabler device an instruction to create a radio access bearer for a multicast service and creating radio access bearer for the multicast service in response to the instruction (page 4, 81st paragraph – SGSN informs the RAN that mobile station is joining the multicast group, so that the proper radio access bearer can be set up for the given multicast session. As known in the art RAN comprises RNC and BS. Herein, RNC of RAN (enabler device) receives instructions and performs establishing a radio access bearer for a multicast service), the multicast service operates to deliver multicast content from a multicast source (page 3, 50th paragraph – a multicast source (MCS) is coupled to the GGSN and delivers for instance various multicast services such as streaming video and audio); the enabler device assigned to a cell supporting a user device (Fig. 1, M1-M4 connect to RNCE of RAN 1 in a cell);

opening a PDP context for the radio access bearer (page 4, 79th paragraph- GGSN sends a multicast context activation message to the SGSN).

Toth does not disclose directing an enabler device to facilitate delivery of the multicast content to the user device using the radio access bearer, the enabler mobile located in the cell for which the enable device enables delivery, the enabler device distinct from a base station, the enabler device further distinct from a base station controller.

Cohen discloses a multicast cell 20 comprising connection station 23 for handling transmission of data between terminals 24 and 25 of users present in the multicast cell and servers connected to the station 23 via the satellites 21 and 22 which serve as radio relays (page 3, 48th-49th paragraphs and Fig. 2. Herein, the satellite is the enabler mobile, located in the multicast cell, for delivering multicast content and it is not the base station or base station controller). It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include satellites for relaying multicast content in Toth's system, as suggested by Cohen, to deliver a communications infrastructure to areas where terrestrial alternatives are unavailable, unreliable and simply too expensive.

With respect to claims 17, 19, and 21, Toth discloses communicating one or more parameters associated with the radio access bearer to an application server (page 4, 76th paragraph – mobile terminal issues a membership report message which may contain information about he desired quality of service).

With respect to claims 22, 24, and 26, Toth discloses a method to provide a multicast service (Fig. 1), comprising:

activating at a multicast gateway support node a PDP context for a multicast service (page 4, 79th – GGSN sends a multicast context activation message to the SGSN), the multicast service facilitated by a plurality of enabler mobiles located in one or more cells (Fig. 1, RNCs of RAN1-RAN5 facilitate the multicast service. Herein, RNCs are enabler mobiles and they are located in more than one cell. As known in the art, RAN comprises RNC and BS), the plurality of enabler mobiles operates to deliver multicast content from a multicast source (Fig. 1, RNCs of RANs operate to deliver multicast content from MCS);

receiving an instruction to join a multicast tree for the multicast service and joining the multicast tree in response to the instruction (page 4, 86th paragraph – SGSN replies to the GGSN, whereby the SGSN, which including at least one processor, if not already a part, becomes a part of the multicast tree).

Toth does not disclose that each enabler mobile of the plurality of enabler mobiles distinct from a base station, each enabler mobile of the plurality of enabler mobiles further distinct from a base station controller, each enabler mobile located in the cell for which the enabler mobile enables delivery of multicast content.

Cohen discloses a multicast cell 20 comprising connection station 23 for handling transmission of data between terminals 24 and 25 of users present in the multicast cell and servers connected to the station 23 via the satellites 21 and 22 which serve as radio relays (page 3, 48th-49th paragraphs and Fig. 2. Herein, the satellite is the enabler mobile, located in the multicast cell, for delivering multicast content and it is not the base station or base station

controller). It would have been obvious to one having ordinary skilled in the art at the time the invention was made to include satellites for relaying multicast content in Toth's system, as suggested by Cohen, to deliver a communications infrastructure to areas where terrestrial alternatives are unavailable, unreliable and simply too expensive.

With respect to claims 23, 25, 27, 32, 37, 42, and 44, Toth discloses receiving the multicast content communicated using a plurality of data packets (Fig. 1, SGSN1 and SGSN 2 receiving GTPT7 and GTPT8); and duplicating the data packets to create duplicated data packets for each enabler mobile of the plurality of enabler mobiles (Fig. 1, SGSN duplicates GTPT7 for RAN 1 and RAN3).

With respect to claims 29, 34, 39, and 44, Toth discloses activating at a multicast gateway support node a PDP context for the multicast service (page 4, 79$^{th}$ – GGSN sends a multicast context activation message to the SGSN); and joining the multicast gateway support node to a multicast tree for the multicast service (page 4, 86$^{th}$ paragraph – SGSN replies to the GGSN, whereby the SGSN, which including at least one processor, if not already a part, becomes a part of the multicast tree).

4. Claims 5, 10, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toth and Cohen further in view of Rodriguez Gil, R. et al (WO 03/039024 A2). Hereinafter, referred to as Toth, Cohen and Rodriguez Gil.

With respect to claims 5, 10, and 15, Toth discloses a multicast network (Fig. 1). Toth does not disclose determining a signal power; calculating power control information from the signal power; and initiating adjustment of the signal power according to the power control information. Rodriguez Gil discloses determining a signal power; calculating power control information from the signal power; and initiating adjustment of the signal power according to the power control information (Fig. 3, quality level is determined whether greater than level max or lesser than level min, if yes, then, power out is adjusted). It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of adjusting the power level in Toth's system, as suggested by Rodriguez Gil, to increase quality of service.

***Response to Arguments***

5. Applicant's arguments with respect to claims 1-44 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H. Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

avl

CHI PHAM
SUPERVISORY PATENT EXAMINER 8/28/07